REMARKS

In the Office Action the Examiner rejected claims 1-4, 6-18, and 42-45 under 35 U.S.C. 103 for being obvious and objected to claim 5 for depending on a rejected base claim. Claims 1-18 and 42-45 remain in the application.

In the previous Office Action, the Examiner allowed most of the claims and had minor objections to a few of them. All of the rejected claims were amended in the manner indicated as being allowable. The Examiner has now made final a rejection based on newly discovered art. The result is a new grounds of rejection that was not necessitated by amendment.

The rejection for obviousness was based on Duncombie in combination with Kita. Kita is the newly found reference. Duncombie relates to high capacity capacitors and gate dielectrics. Duncombie teaches that the utility of such dielectric is in being formed directly over silicon and the resulting use is for DRAMs, gate dielectrics, and decoupling capacitors. Duncombie's dielectric is considered a high dielectric constant material (col. 3, line 65). Duncombie's (col. 2, lines 27-32) stated desire is to keep the temperature of deposition the disclosed dielectrics to below 500 degrees Celsius. Duncombie thus is a proper reference against Applicants' semiconductor patent claims. Of course it's already admitted that Applicants' claims are patentably distinct thereover, namely in the composition of the claimed dielectric material.

The Examiner is now citing Kita as being obvious to combine with Duncombie. Kita discloses a ceramic having as a main component sialon (silicon, aluminum, oxygen, and nitrogen) combined with one of five materials consisting of lanthanum, dysprosium, cerium, hafnium and zirconium. One of the benefits stated by Kita is that this ceramic material is low thermal conductivity (col. 1, lines54-55, 66, and many others). This is not a stated or implied desire for Duncombie's dielectric. Kita teaches a method (col. 3, line 32-35) for making this ceramic that includes feedstock powder that was formed into pellets using a molding technique called cold isostatic press. This is not a method of the type useful for making the dielectric of the type described in Duncombie. Further Kita's method uses a temperature one thousand seven hundred sixty (1760) degrees Celsius. This is more than three times the maximum considered desirable by Duncombie. In short the purpose of the ceramic of Kita is not relevant to the benefits sought by Duncombie and the method for achieving Kita's ceramic flatly contradicts the desired method for Duncombie. Kita's stated and implied desires for its ceramic are in fact not relevant to the classic benefits sought for a dielectric of that claimed by Applicants, namely a

dielectric formed over a semiconductor substrate. Further the method disclosed by Kita is not applicable to classic semiconductor manufacturing.

Accordingly, Applicants submit that Kita is an improper reference for being applied against claims directed to a semiconductor structure, as in the present case. Even assuming arguendo that one of ordinary skill in the semiconductor structures would be expected to have knowledge of the ceramic art such as Kita, Kita and Duncombie are not properly combined because of the lack of suggestion in either to do so.

Applicants believe the application is in condition for allowance which action is respectfully solicited. Please contact the below-signed if there are any issues regarding this communication or otherwise concerning the current application.

Respectfully submitted,

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